Maine Department of Environmental Protection

Chapter 691
RULES FOR UNDERGROUND OIL STORAGE FACILITIES

Effective: September 16, 1991
Amended: December 24, 1996
Amended: June 13, 2002
Amended: March 14, 2004
Corrected Printing: April 28, 2004

11/15/06 DRAFT AMENDMENT

TABLE OF CONTENTS

Chapter 691 RULES FOR UNDERGROUND OIL STORAGE FACILITIES

SUMMARY: This rule requires registration of all new and existing underground petroleum tanks. It establishes standards for the siting and installation of new facilities, and the operation and closure of all types of underground oil storage facilities. The rule also outlines requirements for reporting and clean-up of leaks or other oil pollution at underground storage facilities.

1. **Legal Authority.** This rule is authorized under 38 MRSA, sections 561 et seq. These sections of Maine law authorize and direct the Board of Environmental Protection to develop rules for the registration, siting, design, installation, replacement, operation and closure of underground oil storage facilities and tanks, except tanks used to store propane.

2. **Preamble.** It is the purpose of this rule, consistent with legislative policy, to provide necessary controls over underground oil storage facilities to ensure the protection of Maine's ground water resources from oil discharges and leaks and of public health, safety, welfare and the overall environment.

3. **Definitions.** The following terms as used in this rule have the following meaning:

   A. **Ancillary equipment.** "Ancillary equipment" means devices including but not limited to, piping fittings, flanges, valves and pumps used to distribute, meter or control the flow of oil to or from an underground oil storage tank.

   B. **Board.** "Board" means the Maine Board of Environmental Protection.

   C. **Cathode.** "Cathode" means the electrode of an electrochemical cell at which reduction occurs.

   D. **Cathodic protection tester.** "Cathodic protection tester" means an underground oil storage tank installer certified by the Maine Board of Underground Storage Tank Installers, or an underground oil storage tank inspector also meeting the requirements of Appendix M of this rule.

   E. **Cathodically protected.** "Cathodically protected" means the use of a technique, consistent with the National Association of Corrosion Engineers (NACE) International publication, "Standard Recommended Practice Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," RP-0285-2002, or "Standard Recommended Practice, Control of External Corrosion on Underground or Submerged Metallic Piping Systems", RP-0169-2002, to prevent

the corrosion of a metal surface by making that surface the cathode of an electrochemical cell.

F. Cathodic protection monitoring. "Cathodic protection monitoring," means a process of measuring the structure to electrolyte potential to determine whether a cathodically protected structure is being adequately protected against corrosion. Cathodic protection monitoring shall be performed according to the requirements of Appendix A.

G. Class I liquids. "Class I liquids," means liquids having a flash point below 100 degrees F.

H. Commissioner. "Commissioner" means the Commissioner of the Maine Department of Environmental Protection.

I. Contamination. "Contamination" for the purposes of this rule only and as applied to groundwater, surface water and soils, means oil pollution attributable to an underground oil storage facility and exceeding any one of the following standards:

(1) The presence of free product or an oil sheen;

(2) Primary drinking water standards adopted by the Maine Department of Human Service's Bureau of Health under 22 MRSA, section 2611;

(3) Maximum exposure guidelines developed and recommended by the Maine Department of Human Service's Bureau of Health;

(4) A statistically significant increase in the concentration of measured parameters at on-site or down-gradient locations by comparison with representative background values, as demonstrated by statistical methods and procedures using a 95% level of confidence, approved by the commissioner and consistent with the provisions of 40 CFR subsection 264.97 (except that where the "Regional Administrator" is referred to, the "Commissioner" is meant).

(5) Gasoline or diesel range organic concentrations in soil exceeding 5 and 10 parts per million, respectively; or

(6) Soils visibly stained or discolored by a heavy oil.

J. Continuous monitoring. "Continuous monitoring" means the use of a monitoring device capable of automatic, continuous unattended operation, which will provide a clear, audible or visual indication of the presence of liquid hydrocarbons or hydrocarbon vapors outside of a primary hydrocarbon container or the loss of the primary containment structure's integrity.

K. **Corrosion expert.** "Corrosion expert" means a person who is certified by the commissioner pursuant to 38 MRSA, section 567-A and Appendix N of this rule, as qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks.

L. **Corrosion-induced leak.** "Corrosion-induced leak" means any discharge of oil from an underground oil storage facility or tank caused by the deterioration of materials that comprise the facility or tank because of a reaction with the internal or external environment of the facility or tank.

M. **Daily inventory and reconciliation.** "Daily inventory and reconciliation" means accounting practices for oil stock control, including at a minimum: (1) a record of all bulk liquid receipts; (2) a record of all liquid dispersed from the facility; (3) a daily reconciliation between sales, use, receipts and inventory-on-hand; and (4) a monthly summary of inventory results maintained in accordance with the requirements of section 5(D)(1) of this rule.

N. **Department.** "Department" means the Maine Department of Environmental Protection composed of the board and the commissioner.

O. **Discharge.** "Discharge" means any spilling, leaking, pumping, pouring, emitting, escaping, emptying, or dumping.

P. **Double-walled tank.** "Double-walled tank" means an underground oil storage tank providing no less than 300-degree secondary containment, interstitial space monitoring and secondary containment for pressurized product delivery pipe connections.

Q. **Emergency situation.** "Emergency situation" means any unforeseen circumstances where the installation or replacement of an underground oil storage facility or tank is required to protect the public health, safety, and welfare.

R. **Existing underground oil storage facility or existing underground oil storage tank.** "Existing underground oil storage facility" or "existing underground oil storage tank" means any facility or tank, as defined in subsections WW and XX, that was fully installed as of April 19, 1990, and the location of which has not changed.

S. **Facilities used for consumption on the premises.** "Facilities used for consumption on the premises," means underground oil storage facilities not used to store motor fuels or waste oil, or in the marketing and distribution of oil to others. This includes underground heating oil storage facilities where the product is consumed on the premises or by the owner or operator of the facility.

T. Facilities used for marketing and distribution. "Marketing and distribution facility" means any underground oil storage facility where oil is stored for eventual resale.

U. Free product. "Free product" means nonaqueous phase liquid oil or petroleum.

V. Gallon. "Gallon" means a unit of volume in the U.S. Customary System, used in liquid measure, equal to four (4) quarts, or 3.785 liters.

W. Gasoline. "Gasoline" means a volatile, highly flammable liquid with a flash point of less than 100° F obtained from the fractional distillation of petroleum.

X. Heavy oil. "Heavy oil" means forms of oil that must be heated during storage, including, but not limited to #5 and #6 oils.

Y. Impressed current cathodic protection system. "Impressed current cathodic protection system," means a cathodic protection system that relies on direct current supplied by a power source external to the electrode system.

Z. In service. "In service" means that a tank or facility has had product added or removed for its intended purpose during a consecutive 12-month period.

AA. Leak. "Leak" means a loss or gain of 0.1 gallons or more per hour as determined by a precision test or other tank and piping tightness test methods capable of detecting a 0.1 gallon or more per hour product loss or gain.

BB. Monitoring well. "Monitoring well" means a dug or drilled, cased well or other device used to detect oil in ground water and constructed as specified in appendices F and G of this rule, that can be used for detecting the presence of at least one-eighth of an inch of oil.

CC. Motor fuel. "Motor fuel" means oil that is motor gasoline, aviation gasoline, #1 or #2 diesel fuel or any grade of gasohol typically used in the operation of a vehicle or motor engine.

DD. Occurrence. "Occurrence" means a contamination incident or prohibited discharge associated with one or more tanks or piping at an underground oil storage facility within one year.

EE. Oil. "Oil" means oil, oil additives, petroleum products and their by-products of any kind and in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, oil mixed with other nonhazardous waste, crude oils and all other liquid hydrocarbons regardless of specific gravity. For the purposes of this rule, oil does not include propane.

FF. Operator. "Operator" means any person who is in control of and responsible for the daily operation of an underground oil storage facility or tank.

GG. Out-of-service underground oil storage facility or tank. "Out-of- service underground oil storage facility" and "out-of-service underground oil storage tank" means any such facility or tank, as defined in subsections VV and WW, neither receiving nor dispensing oil, but to be returned to service or awaiting abandonment pursuant to section 11 of this rule.

HH. Owner. "Owner" means any person whom alone, or in conjunction with others owns an underground oil storage facility.

II. Person. "Person" means any natural person, firm, association, partnership, corporation, trust, the State and any agency of the State, governmental entity, quasi-governmental entity, the United States and any agency of the United States and any other legal entity.

JJ. Piping line tightness test. "Piping line tightness test" means a precision test, as defined under subsection LL, to determine the presence of a leak in the piping components of a facility. Volumetric and non-volumetric tests may be used. All piping tightness tests must be conducted in accordance with the requirements of Appendix B.

KK. Pneumatic test. "Pneumatic test" means an air pressure test, performed in accordance with the requirements of Appendix C of this rule.

LL. Precision test. "Precision test" means a tank or piping line tightness test, approved by the commissioner, that is capable of detecting a leak, a loss or gain of 0.1 gallon per hour with a probability of detection of at least 95 percent and a probability of false alarm of five (5) or less percent as determined by an independent testing laboratory using protocols approved by the U.S. Environmental Protection Agency or a nationally recognized independent testing organization, including, but not limited to, the American Society for Testing and Materials (ASTM) and the National Work Group on Leak Detection Evaluations.

MM. Private water supply. "Private water supply" means any dug, drilled or other type of well or spring or other source of water, which collects water for human or animal consumption and is not a public water supply.

NN. Public drinking water supply. "Public drinking water supply" means any well or other source of water that furnishes water to the public for human consumption for at least 15 connections, regularly serves an average of at least 25 individuals daily at least 60 days out of the year, or that supplies bottled water for sale. For the purpose of defining "sensitive geologic area" under subsection QQ, a well or other source of water that is a public drinking water supply solely because the

water is used to make beverages for public sale or consumption is deemed to be a private drinking water supply.

OO. Replacement facility. "Replacement facility" means an underground oil storage facility where one or more of the following major components are replaced: a tank; piping; leak detection equipment; or overfill prevention or containment equipment. Minor repairs to a facility component, or other repairs conducted in accordance with the requirements of this rule, do not trigger the definition of a replacement facility.

NOTE: Except where specified otherwise in the rule, only the major component replaced will need to meet the rule's design and installation requirements for new and replacement facilities. It is not the intent of this definition to require the upgrade of an entire facility in the event one component is replaced.

PP. Secondary containment. "Secondary containment" means a system installed so that any material that is discharged or has leaked from the primary containment is prevented from reaching the soil or ground water outside the system for the anticipated period of time necessary to detect and recover the discharged material. Such a system may include, but is not limited to, impervious liners with a maximum hydraulic conductivity of 10^{-6} cm/sec and compatible with the products stored, double-walled tanks and piping, or any other method approved by the commissioner that is technically feasible and effective, and meets the requirements of section 5(B)(2).

QQ. Sensitive geologic areas. "Sensitive geologic areas" means any of the following: 1) significant ground water aquifers, as defined in subsection RR below; 2) locations within 1,000 feet of a public drinking water supply; or 3) locations within 300 feet of a private drinking water supply. Sensitive geologic areas around surface water bodies shall include all areas within 1000 feet of the intake point of a public water system, except on rivers and streams where it will only include areas within a 1000 feet of the intake point and upstream on either shore. All areas within 300 feet of the intake point in a lake, pond or other surface water body used for a private water supply system shall be considered a sensitive geological area, except on rivers and streams where it will only include areas 300 feet upstream on either shore of the intake point.

RR. Significant ground water aquifer. "Significant ground water aquifer" means a porous formation of ice-contact and glacial outwash sand and gravel, as identified by the current Maine Geological Survey maps, that contains significant recoverable quantities of water which is likely to provide drinking water supplies.

NOTE: Significant Sand and Gravel Aquifer Maps are available from the Maine Geological Survey, Department of Conservation, 22 State House Station, Augusta, Maine 04333-0022.

SS. Site assessment. "Site assessment" means a determination at the time of facility or tank closure, of the occurrence of a prohibited leak or discharge of oil, and of the presence or absence of oil contamination in the soils or the waters of the State. Site assessments must be limited to the underground oil storage facility and must use cost-effective, reliable and technically feasible investigation techniques.

TT. Statistical inventory analysis. "Statistical inventory analysis" or "statistical inventory reconciliation" means a process of evaluating the various sources of errors present in daily inventory records and capable of detecting a leak or discharge of 0.1 gallons per hour with a 95 percent probability and a 5 percent chance of a false alarm as determined by an independent testing laboratory using U.S. Environmental Protection Agency's approved standardized test procedures, conducted in accordance with the requirements of section 5(D)(2).

UU. Tank tightness test. "Tank tightness test" means a precision test, as defined under subsection LL. Tank tightness tests may include volumetric tank tightness tests or non-volumetric tank tightness tests. Tank tightness tests must be conducted in strict accordance with Appendix B and the manufacturer's operating procedures and any protocols identified by an independent testing laboratory as required to meet the performance standards of subsection LL.

VV. Temporarily out of service facility or tank. "Temporarily out of service facility" and "temporarily out of service tank" means a facility that has received written permission from the department to remain inactive for an additional 12 months, in accordance with section 11 of this rule.

WW. Underground oil storage facility. "Underground oil storage facility," also referred to as "facility," means any underground oil storage tank or tanks, as defined in subsection XX, together with associated piping and dispensing facilities located under any land at a single location and used, or intended to be used, for the storage or supply of oil, as defined in this rule. Underground oil storage facility also includes piping located under any land at a single location associated with above ground storage tanks and containing 10 percent or more of the facility's volume capacity

---

NOTE: Underground piping associated with an aboveground oil storage facility, regardless of percent of facility volume, must be installed, operated, maintained and abandoned in accordance with this rule and other requirements of 38 M.R.S.A, section 570-K governing aboveground oil storage facilities. Piping associated with oil terminals, most aboveground home heating oil facilities, and liquefied petroleum and natural gas facilities are exempt.

XX. Underground oil storage tank. "Underground oil storage tank" also referred to as "tank," means any container, 10% or more of its volume being beneath the surface of the ground and which is used, or intended to be used, for the storage, use, treatment, collection, capture or supply of oil as defined in this subchapter, but does not include any tanks situated in an underground area if these tanks or containers are situated upon or above the surface of a floor and in such a manner that they may be readily inspected. For the purpose of this rule, "underground oil storage tank" does not include underground propane storage tanks, underground oil water separators, storm water and emergency catch basins, and hydraulic lift tanks. Overflow tanks associated with oil-water separators are still considered an underground oil storage tank.

YY. Underground oil storage tank inspector. Any person certified under 32 M.R.S.A., section 10002 to inspect underground oil storage tanks and facilities.

ZZ. Underground oil storage tank installer. Any person certified under 32 M.R.S.A., section 10002 to install underground oil storage tanks and facilities.

AAA. Volumetric tank tightness test. "Volumetric tank tightness test" means a hydrostatic tank tightness test or precision test conducted at constant hydrostatic pressure at the bottom of the tank; where instrumentation noise is 3 to 5 times less than the minimum detectable leak rate; where temperature sensors provide adequate spatial coverage of tank; and where calibration of all instrumentation can be field checked. A volumetric or hydrostatic tank tightness test must be performed in accordance with Appendix B of this rule.

BBB. Waste oil. "Waste oil" means petroleum-based oil which, through use or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties. It must have sufficient liquid content to be free flowing. Waste oil is further defined in the department Waste Oil Management Rules, chapter 860, section 5.

CCC. Waste oil dealer. "Waste oil dealer" means any person in the business of transporting or handling more than 1,000 gallons of waste oil for the purpose of resale in a calendar month. A person, who collects or stores waste oil on the site of generation, whether or not for the purpose of resale, is not a waste oil dealer.

DDD. Waste oil tank. "Waste oil tank" means an underground oil storage tank used for the collection and storage of waste oil.

3-A. Siting Restrictions for New Facilities

A. Applicability. This section applies to siting of all proposed new underground oil storage facilities used to store motor fuel or used in the marketing and distribution of oil to others, except where noted in subsection B below. The siting of underground waste oil facilities is also governed by this section. All facility components designed to contain oil in a liquid or vapor phase are subject to the requirements of this section. This section sets forth standards for siting of new facilities over significant sand and gravel aquifers mapped by the Maine Geological Survey (MGS) in the Maine Department of Conservation. This section does not apply to new facilities registered in accordance with section 4 and installed prior to August 1, 2002.

NOTE: Additional standards for siting new facilities within the source water protection area of a public drinking water supply mapped by the Department of Health and Human Services and in the vicinity of public and private water supplies are contained in 38 M.R.S.A. section 563-C.

B. Exemptions. Except as noted below, ~~T~~this section does not apply to:

(1) Heating oil facilities used for consumption on the premises;

(2) Replacement or expansion of a facility registered and installed before July 1, 2002, provided the replacement or expansion occurs on the same property and the owner or operator continues to pay the annual registration fee;

(3) Conversion of an aboveground oil storage facility ~~registered~~ permitted by the Department of Public Safety, Office of the State Fire Marshal and installed before July 1, 2002 to an underground oil storage facility, provided the conversion occurs on the same property; or

(4) Underground piping associated with an aboveground oil storage facility.

Not withstanding exemptions 2 and 3 above, the siting prohibition in 3-A(C) continues to apply if a facility has been out of service for 12 or more consecutive months unless, as provided in section 11(B)(2) of this rule, the commissioner has approved an application allowing the facility to remain temporarily out of service for a longer period of time.

C. Prohibition. A person may not register, install or cause to be installed a new facility within a significant sand and gravel aquifer (herein referred to as "aquifer") mapped by the Maine Geological Survey.

NOTE: Significant Sand and Gravel Aquifer maps are available for inspection in most municipal offices and are available from the Maine Geological Survey, (207) 287-2801. Electronic versions are available from the Maine Office of Geographic Information Systems through the State of Maine Internet website.

D. Variances. Upon application by the owner of the proposed facility, the commissioner may grant a variance to the above siting prohibition where the owner demonstrates to the commissioner's satisfaction that paragraph 1 or 2 below applies, and in the case of paragraph 2, that the aquifer does not have a high potential as a future public drinking water resource as defined in paragraph 3.

(1) Variance for Facility on a Low Yield or Polluted Aquifer. The proposed facility site has a low potential for future use as a public or private drinking water supply because one of the following circumstances apply:

(a) A site-specific hydrogeological investigation demonstrates that the proposed facility site does not overlie an aquifer even though it is mapped as such by the Maine Geological Survey;

(b) A public water system services all water users within 1000 feet upgradient and 2000 feet downgradient of the proposed facility site, and the site is in an urban area or an area made up of dense commercial land uses, industrial land uses, or dense residential development not served by public sewer;

(c) The installation of drinking water supply wells within 1000 feet upgradient or within 2000 feet downgradient is prohibited by property deed restrictions, municipal land use ordinance, or a zoning rule of the Maine Land Use Regulation Commission (LURC);

(d) Hydrogeological studies or ground water quality testing data show that the aquifer underlying the proposed facility site is polluted with one or more man-made contaminants in concentrations exceeding federal maximum contaminant levels (MCLs), or a State MCL or maximum exposure guideline (MEG) established by the Maine Bureau of Health, and the aquifer's ground water has not been and is not now the subject of a commissioner-supervised remediation effort with the goal of the eventual restoration of or the protection of ground water in the aquifer to a quality suitable for human consumption; or

(e) Other documentation demonstrating to the commissioner's satisfaction that the aquifer is unsuitable or unavailable as a future public or private drinking water resource.

(2) Variance for Facility on a Moderate Yield Aquifer.

(a) The proposed facility site is on an aquifer, or a portion thereof, mapped by the Maine Geological Survey as having a moderate potential for future use

as a water supply resource, with yields generally less than 50 gallons per minute as confirmed by a commissioner-approved hydrogeological test conducted in accordance with Appendix T; and

(b) The facility will be designed and installed to include a combination of complementary leak and spill prevention equipment, discharge monitoring equipment, stand-by remediation system equipment, or other engineering and monitoring measures that collectively are more stringent than State or federal requirements and that are determined by the commissioner to further reduce the risk of oil discharges and the likelihood of future ground water contamination.

The following is an example of a combination of additional facility design and monitoring measures for applicable motor fuel facilities that would meet with the commissioner's approval by minimizing the risk of discharges in the product dispensing system and of overfills, as well as improving the detection of routine small discharges to the environment:

(i) installation of suction piping systems and liquid tight dispenser sumps with continuous leak monitoring;
(ii) annual sump tightness testing;
(iii) installation of flush mounted 25-gallon overfill spill containment buckets; and
(iv) the installation and sampling of a ground water monitoring well network surrounding the facility.

Where ground water monitoring wells are installed, they must be sampled quarterly and samples analyzed in accordance with Appendix S of this rule. For facilities storing gasoline, samples must be analyzed for gasoline, benzene, and methyl tertiary butyl ether (MTBE). For facilities storing diesel fuel, heating oil or waste oil, fuel oil analyses must be performed. The installation and sampling of any ground water monitoring wells must be conducted under the supervision of a Maine-certified geologist. Positive results must be reported to the commissioner as evidence of a possible leak in accordance with section 5(D) or section 7(D), as applicable. Monitoring wells must be made accessible to the commissioner or the commissioner's agents for inspection and collection of water samples in accordance with Chapter 2 of the department rules.

(3) Variance Prohibited for Facility on a High Potential Aquifer. The commissioner shall not grant a variance from the prohibition of Section 3-A(C) if any part of the proposed facility site overlies a mapped aquifer that has high potential as a future public drinking water resource. A high potential aquifer is any part of a mapped aquifer that has good to excellent potential ground water yield, generally exceeding 50 gallons per minute, and good water quality. High potential aquifers include:

(a) Any area designated on a Maine Geological Survey "Significant Sand and Gravel Aquifer Map" as a surficial deposit generally with yields greater than 50 gallons per minute;
(b) An aquifer or ground water resource protection zone as designated in a municipal ordinance or a LURC zoning rule;
(c) The source water or recharge area of a community public drinking water system supply well that is in the process of being developed, or within 1000 feet of such a well, whichever is greater, provided the aquifer has been found to yield more than 50 gallons per minute, based on hydrogeological pump test data and analysis by a Maine-certified geologist; or
(d) A portion of a mapped aquifer that, based on a borehole test conducted in the center of a proposed facility site and in accordance with Appendix T of this rule, is expected to yield more than 50 gallons per minute.

(4) Processing of Variance Applications. Processing of applications for a variance under this section including, but not limited to, application requirements, public notice, and appeal procedures, are governed by Chapter 2 of department rules except as specified below.

(5) Variance Application. A variance request application must be submitted in writing on forms provided by the commissioner. In addition to the requirement set forth in Chapter 2 of department rules, the application must include at a minimum the following information:

(a) The registration materials required under section 4 of this chapter;
(b) The names and mailing addresses of all abutters to the property on which the facility is proposed;
(c) A plan view of the proposed facility showing the precise location and footprint of all facility components that will contain oil in either a liquid or vapor phase;
(d) The map coordinates of each corner of the facility footprint and any proposed ground water monitoring wells to sub-meter precision and accuracy in a format compatible with the State of Maine Geographical Information System;

NOTE: The Maine Geographic Information System (GIS) uses as a standard the UTM (Universal Traverse Mercator) system. The datum system used is the NAD83 (North American Datum 1983) version.

(e) If a variance is sought under paragraph (2) of this subsection, identification and a description of the design, installation, monitoring or other engineering and operating enhancements that will supplement the requirements of this chapter and a narrative explaining how the enhancements further minimize the risk of oil discharges and the likelihood of future ground water contamination; and

(f) If a variance is sought under paragraph (1) of this subsection, a written report supporting the variance request. If the report includes ground water quality or other hydrogeological data that was collected and interpreted in support of the variance request, the data and its written analysis must be certified by a Maine-certified geologist. If the variance request is based on a municipal land use ordinance, the report must include a copy of the relevant sections of the ordinance and a copy of the relevant land use mapping, certified by an authorized official of that municipality as being current and true copies. The proposed facility site location shall be accurately shown on the land use map.

NOTE: A pre-application meeting with the Department is recommended to ensure the applicant understands the variance requirements as they may apply to the specific proposed facility site. Such meetings usually avoid misunderstandings of expectations and processing delays.

---

(6) Public Notice Requirements. Within 30 days before filing an application, the applicant shall provide notice by certified mail of the application to the following persons:

(a)To the chief administrative officer and planning board chairperson of the municipality in which the facility is proposed to be located, or to the county commissioners and the LURC director if the facility is proposed in an unorganized township or plantation;
(b) To the local public water utility or other community public water provider, if any;
(c) To abutters of the property on which the facility is proposed;
(d) To other interested persons who have requested in writing of the commissioner to receive variance notices, a list of such persons and their mailing addresses to be maintained by the commissioner; and
(g) By publication once in a newspaper generally circulated in the area where the facility is proposed.

The notice must include the information listed in Chapter 2 of department rules.

(7) Public Meeting. In lieu of or in addition to holding a hearing on the application as provided under Chapter 2 of department rules, the commissioner may hold a public informational meeting where deemed appropriate for the applicant to provide information about the variance request to interested parties. If the commissioner decides to hold a public meeting, notice must be sent at least 10 business days prior to the meeting to the applicant, abutters, the local public water utility or community water provider, the planning board chairperson and chief administrative officer of the municipality in which the facility is proposed (or the LURC director and

appropriate county commissioners if the facility is proposed in an unorganized township or plantation) and other interested persons who have requested in writing of the commissioner to receive variance notices, a list of such persons and their mailing addresses to be maintained by the commissioner.

(8) Notice of Appeal Rights. A copy of the commissioner's decision on the variance request must be provided to the applicant, abutters, the local public water utility or community water provider, and the planning board chairperson and chief administrative officer of the municipality in which the facility is proposed (or the LURC director and county commissioners if the facility is proposed in an unorganized township or plantation). Copies also must be provided to other interested persons upon request. Each copy must be accompanied by a plain statement of the rights of administrative and judicial review of the decision and the time within which those rights must be exercised.

4. Registration of Underground Oil Storage Facilities

A. All underground oil storage tanks and facilities must be registered regardless of use, size or type of petroleum product stored therein and regardless of whether the tanks and facilities are in service or out of service.

B. A person may not install, or cause to be installed, a new or replacement underground oil storage tank, piping or facility without first having: 1) filed registration materials with the commissioner in accordance with subsection I, which materials have been deemed complete by the commissioner at least 10 business days prior to installation; 2) sent a copy of the materials and any subsequent amendments to the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine Land Use Regulation Commission (LURC); 3) retained a copy to be made available on site to department employees, agents or authorized representative and to municipal officials; and 4) paid the registration fee in accordance with subsection J.

C. No person may retrofit an existing underground oil storage facility with leak detection, overfill prevention equipment or other design or installation changes without first having filed a registration amendment in accordance with subsection M.

D. Registration materials that are not in conformance with this rule will not be accepted by the commissioner.

E. Written acknowledgment from the commissioner is acceptable evidence that a new, retrofitted or replacement tank or facility has been properly registered. The commissioner will determine the completeness of the registration materials and notify the registrant within 10 business days of receipt.

F. A person who installs, or causes to be installed, a new or replacement underground storage facility, or retrofits an existing facility, after 10 business days of the commissioner's receipt of the registration form, without first having received confirmation that the registration is complete, does so at the person's own risk. If it is determined that the facility was not installed in accordance with the regulations, the tank owner shall bring the facility into conformance with these regulations.

G. When an emergency situation occurs, the time requirement of subsection B may be waived by the commissioner upon petition of a facility registrant if: 1) the registrant can demonstrate to the commissioner that an emergency situation exists; and 2) the municipality or the Maine LURC having jurisdiction has been notified by the registrant that the facility is being installed without the 10 day notice due to an emergency situation.

H. For existing facilities, the information required for registration must be submitted to the commissioner and a copy provided to the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine Land Use Regulation Commission (LURC) in accordance with this section. No person may operate, maintain or store oil in an underground oil storage facility, unless each underground oil storage tank at that facility has been properly registered with the commissioner and a copy of the registration materials has been received by the chief administrative official of the municipality having jurisdiction, or in the case of an unorganized township to the Maine LURC.

I. Registrations must be submitted on forms developed by the commissioner and containing the following information:

(1) The name, mailing address and telephone number of the owner;

(2) The name, mailing address and telephone number of the operator;

(3) The name, street address and telephone number of the facility;

(4) The location of the facility compatible with the State of Maine Geographic Information System (GIS). If a new facility or a facility expansion, adequate GIS location information to determine if the facility meets the siting restrictions of 38 M.R.S.A Section 563-C and Section 3-A of this rule;

(5) The name, mailing address and telephone number of an individual to contact with questions on the registration materials submitted;

(6) The location of the facility relative to a sensitive geologic area, including: (a) whether a private water supply exists within 300 feet of the tanks; (b) if any person owns, operates, or utilizes any private water supply within 300 feet of the tanks; (c) whether a public water supply exists within 1,000 feet of the tanks; and (d) whether the facility is located on a significant ground water aquifer, as defined by this rule;

(7) The location of the facility relative to a 100 year flood plain as mapped by the Federal Emergency Management Agency (FEMA), or in the absence of such maps, as indicated by the presence of flood plain soils or the flood of record.

NOTE: Federal Emergency Management Agency maps are available at most municipal offices.

(8) The size of each tank and each internal storage compartments (if more than one) measured in gallons;

(9) The type of tank(s) and piping, including the materials used for construction and the type of pumping system;

(10) The type of product(s) stored in each tank;

(11) For a new or replacement facility or retrofitting of an existing facility, the installer's name, signature and certification number assigned by the Maine Board of Underground Storage Tank Installers;

(12) For a new or replacement facility, a site drawing of the facility containing the location of all new or replacement tanks, including: (a) distance and direction measurements that are sufficient to locate all underground portions of the facility, (b) details of secondary containment and interstitial space leak detection monitoring equipment, (c) locations of any monitoring wells; (d) all piping associated with the new or replacement facility;

(13) The best estimate of the date of installation for each existing tank and its warrantee expiration date, if available;

(14) For new and replacement tanks, the expiration date of the tank manufacturer's warranty;

(15) For retrofitting an existing underground oil storage facility, the information required in paragraphs 1, 2, 3, 4, 8, 9, 11 and 12 above must be provided on the required registration amendment, as well as information on the type of leak detection, overfill prevention, or other equipment to be installed;

(16) Any other information required by federal law or regulation; and

NOTE: 1984 amendments to federal law (Subtitle I of the Resource Conservation and Recovery Act, Section 9002 et seq.) require an underground tank notification program and specify informational requirements for that program. Registration forms meeting all federal and state informational requirements are available from the department. A tank owner is not required to send a copy of the completed form to the U.S. Environmental Protection Agency in addition to the commissioner.

(17) Certification of the accuracy of the information by the tank owner or the owner's permanent full time employee. The certification cannot be signed by the installer or other subcontractor, unless the tank is owned by the installer.

J. Registration fees. The owner or operator of an underground oil storage facility shall pay an annual registration fee to the commissioner of $35 for each tank located at the facility, except that single family homeowners are not required to pay a fee for a tank at their personal residence. Annual payments must be paid on or before January 1st of each calendar year in order to maintain an effective registration for the upcoming year. Registrations for new tanks shall include payment of the annual registration fee. Registration of a replacement facility shall

not require that an additional fee be paid or accompany the registration amendment if the annual fee has been previously paid.

K. It is the responsibility of the facility owner to register all tanks. Where the facility owner cannot be determined or is disputed, it is the responsibility of the property owner to register all facilities and tanks located on his property.

L. **Registration number.** The commissioner will assign a unique registration number to each facility and to each tank at a facility. These registration numbers shall be provided to the owner or operator and shall be used for annual re-registration and in all subsequent correspondence regarding registered facilities and tanks. The owner or operator shall post the registration number or certificate in a prominent location at the facility.

M. **Registration amendments.** The owner or operator of an underground oil storage tank shall file an amended registration form with the commissioner and the Maine Land Use Regulation Commission or municipality having jurisdiction whenever there is a change in the information required pursuant to subsection I such amendments must be received by the commissioner within 10 business days of the change, except that amendments for installation of leak detection, overfill and spill protection, other underground oil storage facility equipment, or the re-installation of tanks must be submitted at least 10 business days before installation. There is no fee for filing an amended registration. No amendment is required for repairs.

NOTE: A change in the facility ownership or operator requires the submission of a registration amendment.

N. **Supplier notification requirement.** Any person who sells a tank intended to be installed as an underground oil storage tank shall notify the purchaser in writing of the purchaser's registration obligations under this section.

O. Wherever these rules require that information or notice be submitted to the commissioner or department, failure to provide such notice or information in the manner required by these rules or providing false information constitutes a violation of these rules.

P. **Notifications at time of facility sale or transfer.** Prior to the sale or transfer of any real estate where an underground oil storage facility is located, the owner of the real estate shall file a written notice with the purchaser or transferee. The notice shall disclose the existence of the underground oil storage facility, its registration number or numbers, the real estate where the facility is located, whether or not the facility has been abandoned in place and that the facility is subject to this rule, including the registration requirements of this section. A change in facility ownership requires the new owner or operator to amend the facility registration within 10 business days of the transfer of ownership by

providing the commissioner written notice of the change, including the facility name and registration number; and the name, mailing address and telephone number of the new owner.

5. Regulation of Underground Oil Storage Facilities Used to Store Motor Fuels or Used in the Marketing and Distribution of Oil

A. Applicability

(1) This section and its requirements apply to all facilities and tanks used to store motor fuel or used in the marketing and distribution of oil to others, except where noted below.

(2) This section does not apply to field constructed tanks and airport aviation fuel pressurized hydrant piping, which must comply with sections 8 and 10 of this rule, respectively.

B. Design and installation standards for new and replacement facilities

(1) General design requirements

(a) All new and replacement tanks must be constructed of fiberglass reinforced plastic (hereafter "fiberglass"), cathodically protected steel, or other equally noncorrosive material approved by the commissioner. Piping and below ground ancillary equipment in contact with soil or water must be constructed of fiberglass, cathodically protected steel or other corrosion-resistant or noncorrosive materials approved by the commissioner.

(i) It is the responsibility of the facility owner to demonstrate to the satisfaction of the commissioner that the materials are noncorrosive or corrosion resistant and meet or exceed the performance standards listed below.

(ii) All new or replacement facilities must be listed and constructed in accordance with the standards contained in the following:

Steel Tanks - Underwriters Laboratories 58 and 1746; or Underwriters Laboratories Canada S603.-2000;

Fiberglass Tanks - Underwriters Laboratories 1316;

Cathodically Protected Tanks and Piping - National Association of Corrosion Engineers (NACE) International, RP-0285-2002, ~~or~~ Steel Tank Institute (STI) Tank Standard R892-91 or Petroleum Equipment Institute RP-100-200~~0~~5;

Composite Tanks - UL 1746 or Steel Tank Institute (STI) Composite Tank Standard (F894-02);

Non-Metallic and Fiberglass Piping - Underwriters Laboratories of Canada ~~Guide ULC-107.7~~ ULC/ORD –C971 - 2005or Underwriters Laboratories ~~Subject~~ Standard 971 as revised through March 2, 2006.

Pipe Connectors - Underwriters Laboratories Standard 567;

Flexible Connectors - Underwriters Laboratories of Canada Standard ULC/CAN -S633-; and

Steel Piping - National Fire Protection Association Standards 30 or 31, American Petroleum Institute Publications 1615 and 1632, and National Association of Corrosion Engineers (NACE) International Standard RP- 0169-2002.

NOTE: Fiberglass clad steel and other steel composite tanks need not be provided with galvanic or impressed current cathodic protection if constructed with secondary containment and interstitial space monitoring in accordance with the standards of this subsection.

(iii) Impressed current cathodic protection systems must be designed by a corrosion expert and according to the standards described in the National Corrosion Engineers (NACE) International Recommended Practice
RP 0285-2002 and RP-0169-2002, and installed under the supervision of a corrosion expert and by a Maine certified underground oil storage tank installer.

(b) All facility construction materials must be chemically and physically compatible with the product to be stored.

NOTE: Gasoline underground oil storage facilities with a monthly throughput of 10,000 gallons or more in any one month are required to install vapor control equipment in accordance with Chapter 118 of the department air quality rules.

(2) Leak detection

(a) All new and replacement facilities must be designed to provide secondary containment for all facility components routinely containing product, including tanks, product piping, other below ground ancillary equipment and product dispensers. New and replacement tanks and product piping must have continuous interstitial space monitoring. All piping sumps including dispenser

sumps and pans shall be provided with continuous leak detection monitoring.

(b) Interstitial space monitoring of tanks and piping must be able to detect a loss or gain in the interstitial space from a leak in the primary or secondary containment structure of 150 gallons or more within 30 days of a leak or discharge.

(c) For facilities with a secondary containment liner in the tank or piping excavation, the secondary containment system must be designed in accordance with Appendix O.

(d) Suction piping exemption. Suction piping designed and installed in accordance with this rule is not required to have secondary containment.

(3) Overfill and spill prevention equipment. Facility owners and operators shall take measures to prevent releases due to spilling or overfilling. New and replacement facilities must include:

(a) A liquid tight spill catchment basin of a minimum capacity of 15 gallons for each tank fill, which is sealed around the fill pipe and will collect any spillage during product delivery. When only the overfill bucket is retrofitted or replaced, the largest capacity catchment basin feasible from 5 to 15 gallons must be installed.

(b) Overfill prevention equipment that will:

(i) automatically shut off flow into the tank when the tank is no more than 95 percent full;

(ii) alert the transfer operator when the tank is no more than 90 percent full by restricting flow into the tank or triggering a high-level audible alarm (vent whistles are not considered a high-level alarm); or

(iii) restrict flow 30 minutes prior to overfilling, alert the operator with a high level alarm one-minute before overfilling or automatically shut off flow into the tank so that none of the fittings located on the top of the tank are exposed to product.

Vent float valves that restrict flow may not be used on a suction system or where pump-off unloading is used.

(c) Sumps or pans of adequate dimensions must be located and installed under all product dispensers in such a manner as to collect all product leaks and

discharges from dispenser piping and equipment to prevent oil reaching the environment.

(d) Bulk plants and other distribution facilities where oil is transferred to tank trucks or railroad tank cars must include a system to prevent oil spills and overfills from reaching the environment. Installation of a system to catch or direct the flow of loading area spills and overfills is required. Any such system must be able to handle at least an individual overfill or spill of 100 gallons, and must include one of the following:

(i) An impermeable curbed loading pad, a catchment basin, an underground oil storage tank or other containment system;

(ii) An oil water separator discharging to a public wastewater treatment facility or the waters of the State, licensed by the department pursuant to 38 MRSA, sections 413 and 543; or

(iii) Other loading rack overfill containment approved by the commissioner.

Subsurface discharges of potentially oil contaminated stormwater is prohibited unless licensed by the Department in accordance with 38 M.R.S.A., sections 413 and 543

(4) General facility installation requirements

(a) No person may install an underground oil storage facility or a portion thereof unless that person is a properly certified underground oil storage tank installer with the appropriate class of certification in accordance with 32 M.R.S.A., section 10001 et seq., and has paid the required certification fee.

NOTE: The Maine certified installer shall be present and supervising all aspects of the UST facility installation.

(b) An underground oil storage tank installer may not install an underground storage facility if the installer has been placed on inactive status or if the installer's certification has been suspended or revoked under 32 M.R.S.A., section 10015, and has not been reinstated.

(c) An underground oil storage facility may not be installed unless the entire facility has been registered in accordance with section 4 of this rule.

(d) An underground oil storage tank or piping may not be installed within one foot of the closest bedrock.

(e) All phases of the installation of an impressed current cathodic protection system must be conducted under the direct supervision of a corrosion expert. The tank, piping and other portions of the facility other than the impressed current system may be installed by a Maine certified underground oil storage tank installer without such supervision.

(f) All new and replacement steel tanks and piping with cathodic protection must be monitored within 6 to 12 weeks of completion of installation by a cathodic protection tester in accordance with Appendix A of this rule.

(g) Certification of proper installation: Owners of new and replacement facilities shall ensure that the installer(s) provides certification to the commissioner within 30 days of completion of installation; that the facility's materials, design and installation are in compliance with the requirements of this rule. This certification shall be provided in writing on a form provided by the commissioner.

(h) No used or previously installed fiberglass, cathodically protected steel, or other tank meeting the requirements of section 5(B) may be reinstalled, unless the owner has supplied the commissioner with satisfactory documentation that the manufacturer will warranty that tank against internal and external corrosion and structural failure for a period of at least 10 years, after which the tank or piping must be properly abandoned in accordance with section 11 of this rule. Reinstallation of a tank requires an amendment of the facility registration in accordance with section 4(M) of this rule. The warranty documentation shall accompany the submission of the registration amendment. Used piping may not be reinstalled.

(5) Installation requirements for new and replacement tanks

(a) New and replacement tanks and facilities must be installed in conformance with the requirements of Appendix D, except field constructed tanks which must be installed in accordance with section 8 of this rule.

(b) If a tank is replaced, all associated piping not constructed of fiberglass, cathodically protected steel, or another equally noncorrosive material approved by the commissioner also must be replaced. Replacement piping must be designed and installed in accordance with this rule. If product piping is replaced and structural damage to the associated tank has occurred, impairing its physical integrity, the tank also must be replaced if not constructed of fiberglass, cathodically protected steel, or other non corrosive material approved by the commissioner. Any replacement tank must be designed and installed in accordance with this rule. Repairs of damaged fiberglass, cathodically protected steel and other commissioner approved noncorrosive material tanks may only be made if conducted in

accordance with sections 5(D)(16) or (17). Tanks that can not be repaired must be abandoned in accordance with section 11.

(6) Installation requirements for new and replacement piping

(a) All underground piping must be designed and installed in conformance with the requirements of Appendix E, except airport aviation fuel pressurized hydrant piping, which must comply with section 10 of this rule.

(b) All underground piping in contact with soil or water must be constructed of fiberglass or cathodically protected steel. Other noncorrosive materials may be used when approved by the commissioner.

(i) It is the responsibility of the tank owner to demonstrate to the satisfaction of the commissioner that the materials are noncorrosive.

NOTE: Galvanized piping does not meet the requirement for corrosion protection of tanks or piping, and does not meet the criteria for cathodic protection as stated in the National Association of Corrosion Engineers International, Recommended Practices 0285-95.

(ii) All new or replacement non-metallic product piping must be listed by Underwriters Laboratories for underground use. Cathodically protected piping must be constructed and installed in conformance with the National Association of Corrosion Engineers (NACE) International, Recommended Practices, Publication No. 0169-2002, or Petroleum Equipment Institute (PEI) Recommended Practice RP100-2000.

(iii) Other than field coating limited to vertical fill pipes, vertical vent risers and piping joints, field coating of steel pipe for product delivery lines is prohibited except where supervised and inspected by a corrosion expert.

(c) Product lines must be installed in a single trench between the tank area and each pump island. Underground vent lines must be installed in a single trench. All product and vent lines shall slope toward the tank area at a minimum of 1/8 inch per foot.

NOTE: The department recommends placing colored, plastic tape in the excavation trench for FRP and plastic piping runs to warn excavator operators and to help locate piping in the future.

(d) Secondary containment and cathodic protection of vertical, direct drop fill pipes is not required if the fill pipe is constructed of Schedule 40 steel and is uniformly coated with a minimum of 1/8 inch of fiberglass resin, bitumastic coating or epoxy coating. The pipe surface must be properly prepared and the coating allowed to cure. Offset fill pipes require secondary containment and interstitial leak detection.

(e) Piping shall be installed such that in-line piping leak detectors and overfill prevention equipment operate in accordance with manufacture specifications and the requirements of this rule.

(7) Installation requirements for leak detection and overfill/spill prevention equipment

(a) Leak detection and overfill/spill prevention alarms and shutoff equipment must be installed and operating prior to the start of the facility's operation and in accordance with manufacturer specifications, including proper calibration of electronic equipment.

(b) Piping, tank and dispenser sumps and pans must be liquid tight to an elevation at least three (3) inches above the liquid level required to activate the leak detection sensor.

(c) Penetrations of a sump for a piping or other sump entrance must be three (3) or more inches above the leak detection sensor activation level to ensure meeting the above tightness standard. This requirement does not apply to the bottom access hole in a tank sump for the installation of a pressurized product pump or to provide access to the tank for suction dispenser piping.

~~NOTE: No penetration of a sump for a piping or other sump entrance within three (3) inches of the leak detection sensor activation level should ensure meeting the above tightness standard.~~

C. Retrofitting requirements for existing facilities

(1) Existing facility owners shall retrofit or institute a leak detection method, capable of detecting a leak in the tank, product piping and other portions of the facility normally containing product. Such leak detection must be capable of detecting a leak within 30 days of occurrence with a probability of detection of at least 95 percent and a 5 percent or less probability of a false positive as determined by an independent testing laboratory, using U.S. Environmental Protection Agency approved testing protocols. Leak detection methods found to meet the above performance standards and tested using

other protocols approved by nationally recognized independent testing organizations may be used. Examples include, but are not limited to, the American Society of Testing and Materials and the National Work Group on Leak Detection Evaluations. Acceptable methods are listed in paragraph 2 below. Facility owners shall have leak detection in operation by December 1, 1990, for facilities with pressurized piping and by December 1, 1991, for facilities with suction piping. Existing facilities with secondary containment with interstitial space monitoring for all tanks, product piping and associated below ground ancillary equipment as well as tanks installed with an impervious barrier sloped to a monitoring sump in accordance with Appendix G are considered to meet this requirement. Facilities with suction piping installed such that the piping is sloped so that the contents of the pipe will drain back into the tank if suction is lost, and only one check valve is located in a piping line with the check valve located directly below and as close as possible to the pump, may have until December 1, 1993 to implement leak detection. Where an existing tank has leak detection meeting the requirements of this rule, the associated product piping must be provided leak detection in accordance with the time schedule and other provisions of this subsection. If the mandatory removal date for a nonconforming facility under 38 MRSA, section 563-A, precedes the leak detection compliance schedule outlined above, the facility owner shall comply with the removal schedule in section 563-A.

(2) Acceptable leak detection methods for existing facilities are any one of the following:

(a) Monthly reconciliation of daily product inventory data in accordance with Appendix I and an annual precision test of all tanks and piping. All facilities intending to use or using this method must install drop tubes in the fill pipes. An annual statistical inventory analysis, conducted in accordance with section 5(D)(2) or other commissioner approved methods of facility leak detection capable of detecting a leak rate of 0.1 gallons per hour with a 95 percent probability of detection and 5 percent probability of false alarm, may be substituted for a precision test for the purposes of this paragraph. In addition, all pressurized piping must be retrofitted with an automatic in-line leak detector capable of detecting a leak of 3 or more gallons per hour at 10 pounds per square inch line pressure within 1 hour of its occurrence with a 95 percent probability and a 5 percent probability of false alarm.

NOTE: Use of daily inventory data and annual statistical inventory analyses are unlikely to provide results meeting the performance standards of section C(1) above for power generator or high volume (average monthly throughput exceeding 75,000 gallons) tanks. Another method of leak detection is recommended.

(b) Continuous or manual monitoring for free product in ground water monitoring wells installed in the excavated area, and as close as technically feasible around the tank or tanks, accompanied by one of the methods listed below in paragraph 2(e) of this subsection to detect a leak from piping not installed in accordance with section 5(B)(2). Continuous monitoring devices and manual monitoring methods must be capable of detecting the presence of at least one-eighth inch of free product on the ground water surface in monitoring wells. Monitoring wells must be installed in accordance with Appendix F and the following requirements:

(i) The ground water table is not more than 20 feet from the ground surface; and

(ii) Soils between the tank and monitoring wells shall consist of gravel, coarse to medium sands, or other permeable materials with a hydraulic conductivity of not less than 0.01 centimeters per second.

(c) Continuous vapor monitoring in the unsaturated soil zone of all elements of the facility, using sufficient sampling points to detect a leak or discharge of oil from any point in the facility. Vapor monitoring must meet the following requirements:

(i) The method shall test for oil vapors or tracer compounds within the soil gas of the excavation zone;

(ii) Materials used as backfill are gravel, sand or crushed rock and are sufficiently porous to readily allow diffusion of vapors from leaks or discharges into the excavation area, with a hydraulic conductivity of 10^{-3} cm/second or greater;

(iii) The stored oil product or any tracer compound placed in the facility, is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone. All tracer compounds shall be approved by the commissioner prior to use;

(iv) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water table, rainfall, or soil moisture or other known interferences so that a leak or discharge could go undetected for more than 30 days. The ground water table shall be below the tank or piping excavation zone;

(v) The level of background contamination in the excavation zone or elsewhere in close proximity to the facility will not interfere with the method used to detect leaks or discharges;

(vi) The excavation zone is assessed by a Maine certified installer or the equipment manufacturer's representative to ensure compliance with the suitability requirements above in this paragraph, and to establish the number and locations of vapor monitoring wells or ports such that leaks or discharges will be detected from any portion of the facility that routinely contains product. At a minimum, one vapor monitoring well must be located within 5 feet of each pump and dispenser, and at each end of each tank; ~~and~~

(vii) Vapor monitoring wells or ports are clearly marked and secured to avoid unauthorized access or tampering.; and

(viii) All monitoring components shall meet manufacturer's specifications and shall be installed according to manufacturer specifications.

(d) ~~Automatic tank gauging systems that include electronic line leak detectors on all pressurized lines, that are capable of detecting a 0.1 gallon per hour leak from the tank and associated piping, and that conduct a satisfactory test at least once every 30 days~~.

(~~e~~d) Automatic tank gauging, that can detect a 0.2 gallon per hour loss, conducted at least ~~monthly~~ once every 30 days, and.~~, plus daily product inventory conducted in accordance with section 5(D) of these rules. To detect a leak or discharge from~~ monitoring of associated existing piping ~~not installed in accordance with section 5(B)(2)~~, by implementing one of the leak detection methods listed below in paragraph C(2)(~~f~~e) of this section ~~also must be implemented~~.

(~~f~~e) When an existing tank is to be monitored for leaks by ground water monitoring wells or by automatic in-tank gauging, ~~not capable of detecting a leak in piping,~~ associated existing piping must be monitored for leaks using one of the following methods:

(i) Secondary containment with continuous interstitial space monitoring;

(ii) For pressurized piping, either an automatic mechanical in-line leak detector and an annual piping line tightness test; or an electronic in-line leak detector capable of detecting a piping leak of 0.1 gallons per hour; or

(iii) Replacement with self monitoring suction piping designed and installed in accordance with requirements for new and replacement piping in this section and Appendix E.

(~~g~~f) Where only existing piping requires leak detection, one of the following methods must be used:

(i) Secondary containment with continuous interstitial space monitoring;

(ii) For pressurized piping, an automatic mechanical in-line leak detector, and an annual piping line tightness test; or an electronic in-line leak detector capable of detecting a 0.1 gallon per hour leak;

(iii) Replacement with self monitoring suction piping designed and installed in accordance with requirements for new and replacement piping in this section and Appendix E.

(hg) Other facility leak detection systems approved by the commissioner that can detect at least a 0.12 gallon per hour leak rate with at least a 95 percent probability and a 5 percent or less chance of false alarm, as determined by an independent testing laboratory using U.S. Environmental Protection Agency (EPA) approved testing protocols, or by other testing protocols approved by a nationally recognized independent testing organization.

(3) Overfill and spill prevention equipment must be retrofitted at all facilities constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner in accordance with section 5(B) by December 22, 1998.

(4) Facilities that do not comply with the retrofitting requirements of this subsection shall cease operation on the date upon which retrofitting was required, and close in accordance with section 11 of this rule.

D. Monitoring, maintenance, operating and inspection requirements for existing, new and replacement facilities

(1) Daily inventory requirements. Except as provided in paragraph 3 below, the owner or operator of facilities shall maintain and reconcile daily inventory for each day that oil is being added to or withdrawn from the facility or tank.

(a) Daily inventory must be conducted so as to be able to detect a leak or discharge of at least 1 percent of throughput on a monthly basis and must include all the following:

(i) The daily measurement of product and water levels in each tank for each day product is added or removed. Measurement of product levels may be made by a stick gauge reading. Water level measurements may be made by using water paste and a gauge stick. Electronic or mechanical level measuring devices which measure product and water levels are also acceptable. Product level and water levels are to be measured to the nearest one-eight of an inch (1/8").

(ii) The measurement of product levels, before and after any deliveries.

(iii) Product dispensing is metered and recorded within Maine Department of Agriculture's weight and measure standards or an accuracy of six (6) cubic inches for every five (5) gallons of product withdrawn.

(iv) Daily reconciliation of tank measurements and pump meter readings shall be performed to determine daily loss or gain of product. The reading of pump meter readings and product delivery receipts shall not in itself constitute adequate inventory records.

(v) A log book shall be kept at the facility which includes each measurement and the initials of the individual taking and recording the pump meter readings and the actual product and water level measurements.

(b) All inventory data must be summarized monthly and must include the total cumulative loss or gain for the preceding month.

NOTE: See Appendix I for an example of a daily inventory data sheet. Practices described in the American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets", may be used, where applicable, as guidance in meeting the daily inventory requirements of this rule.

(2) Statistical Inventory Analysis

(a) Except as provided in paragraph 3 below, the owner of each tank shall be responsible for having an annual statistical inventory analysis performed for each of the owner's tanks, and reporting the results of the analysis to the commissioner on or before July 1 of each year. The analysis must include an evaluation of the various sources of error present in daily inventory records, including the following:

(i) identifying and removing large measurement errors;

(ii) identifying unrecorded additions or removals of oil;

(iii) detecting errors in metering oil from the tank;

(iv) estimating the potential for temperature differential to induce spurious trends or conceal real trends;

(v) establishing that residual errors contain no systematic components and reflect on the normal errors of measurement;

(vi) evaluating the quality of the data provided and the adequacy of operator procedures to detect leaks if present;

(vii) identifying persistent daily physical loss which could be consistent with leakage; and

(viii) determining values and dates for any delivery errors and any unexplained one time gains or losses.

(b) The report of the analysis results also must contain the following facility information:

(i) Name of the facility;

(ii) Municipality in which the facility is located;

(iii)Name of the owner;

(iv)Registration numbers assigned by the commissioner to the facility and to the tanks;

(v) Certification by tank owner and the agent conducting the analysis that the results are true and accurate to the best of his or her knowledge; and

(vi)Dates of inventory data used in the analysis.

(c) The requirement for statistical inventory analysis must be met only if the inventory records submitted are capable of being analyzed with conclusive results. The following attributes constitute cause for invalidation of an analysis:

(i) Excessively large and other clearly erroneous measurements of inventory-on-hand;

(ii) Excessively large unexplained removals or additions of product;

(iii) Failure to take daily readings of inventory-on-hand;

(iv)Excessive data recording errors; or

(v) Evidence of the use of an incorrect conversion chart or persistent faulty gauging.

(d) A statistical inventory analysis resulting in an inconclusive finding due to poor quality product inventory readings, pump error, tank tilt or other reasons must be redone, following correction of likely errors, using new daily inventory data and submitted to the commissioner within 75 days of receipt of the initial statistical analysis.

(e) All tank owners shall maintain the results of all annual statistical inventory analysis for each underground storage tank in accordance with section 5(D)(19). Only statistical inventory analyses by methods meeting the definition and performance standards of section 3(TT) shall be accepted by the commissioner.

(3) Exemptions from daily product inventory and annual statistical inventory analyses. The following tanks are exempt from the requirements of paragraphs 1 and 2 above: tanks supplying fuel to a power generator; tanks with an average monthly throughput exceeding 75,000 gallons over the prior 12 months; double-walled tanks with continuous interstitial space leak detection; and existing tanks constructed of fiberglass, cathodically protected steel or other commissioner approved noncorrosive material and which are monitored for leaks by a method able to detect a product loss or gain of 0.~~1~~2 gallons or less per hour with a 95 percent or greater level of confidence. These exemptions are only applicable if the following conditions are met.

(a) Product piping associated with the tank has secondary containment, a self-monitoring suction product delivery system or another form of commissioner approved leak detection able to reliably detect leaks of 0.~~1~~2 gallons or more per hour; and

(b) The tank and piping are installed and operated in accordance with the other requirements of this rule.

(4) Operation and Monitoring Requirements for Galvanic Cathodic Protection Systems

(a) All galvanic cathodic protection systems must be operated and maintained to continuously provide adequate corrosion protection to the underground metal components of the facility routinely storing or containing oil, and in a manner that ensures no leaks occur during the operational life of the facility. Adequate corrosion protection is indicated by a cathodic protection test reading of at least negative 0.85 volts. Steel composite tanks without secondary containment and continuous interstitial space monitoring must comply with this requirement.

(b) All cathodically protected tanks and piping must have an accurate structure to soil potential reading performed upon installation or repair and annually thereafter. The cathodic protection testing must be conducted by

a qualified certified underground tank installer or inspector. A tank inspector shall also be approved as a cathodic protection tester in accordance with Appendix M.

(c) When repairs to cathodic protection systems are made or underground work is performed at the site, the cathodic protection shall be monitored 6 to 12 weeks after such work has been completed, to assure that the system is functioning properly.

(d) Monitoring must be performed in accordance with the requirements of Appendix A.

(e) Repairs of a galvanic cathodic protection system must be completed by a Maine Certified Underground Oil Tank Installer within 180 days of a failed test.

(f) The results of all monitoring and repairs must be kept in a logbook in accordance with section 5(D)(19).

(5) Monitoring Requirements for Impressed Current Cathodic Protection Systems

(a) All impressed current cathodic protection systems must be operated and maintained to continuously provide adequate corrosion protection to all underground metal components of the facility routinely storing or containing oil, and in a manner that ensures that no leaks occur during the operating life of the facility. Adequate corrosion protection is indicated bycathodic protection tests, conducted in accordance with Appendix A.

(b) A monthly voltage reading and inspection of the rectifier meter on all facilities must be performed using the impressed current system of corrosion protection. All readings, inspection results and repairs must be recorded in a logbook, which must be kept in accordance with the record keeping requirements of 5(D)(19).

(c) A certified installer, or a certified inspector who has also been certified ~~by NACE International~~ in accordance with Appendix M of this rule as a cathodic protection tester, shall measure the structure to soil and structure-to-structure potentials, the rectifier voltage and current output as part of an on-site test and inspection at least once per year.

(d) Repairs to an impressed current cathodic protection system must be supervised by a corrosion expert and adhere to NACE International Standards RP285-~~95~~2002 and 0169-2002.

(6) Operation, maintenance and testing of in-line leak detectors. In-line leak detection devices must be maintained to properly operate in accordance with this rule at all times while the piping contains oil. The facility owner or operator shall ensure all in-line leak detectors are tested for proper operation

in accordance with manufacturer instructions upon installation and at least once each calendar year thereafter. Tests of in-line leak detectors must be conducted by a certified underground oil storage tank installer, or inspector who is also certified by the manufacturer of the equipment, where such manufacturer certification is available. Improperly operating leak detectors must be repaired or replaced by a certified underground oil storage tank installer, within 30 days. A log of all tests, maintenance, and repairs must be maintained by the owner in accordance with the record keeping requirements of section 5(D)(19).

(7) Overfill and spill prevention

(a) The facility owner or operator shall ensure that a representative of the owner, operator or oil transporter is physically present during and monitors all product deliveries or transfers.

(b) Operation, maintenance and testing of overfill and spill prevention equipment. All overfill and spill prevention equipment must be maintained to properly operate at all times while the facility is in operation, and in accordance with the requirements of this rule. Overfill and spill prevention alarms and shutoff systems must be tested at least annually and recalibrated, if necessary, in accordance with manufacturer's instructions. Testing and recalibration must be conducted by a Maine certified underground oil tank installer, or inspector who is also certified by the manufacturer of the equipment, if such manufacturer certification is available. Repairs of automatic overfill and spill prevention alarm and shutoff systems must be done by a Maine certified underground oil storage tank installer, within 30 days. A log recording all tests, maintenance and repairs must be maintained by the owner in accordance with section 5(D)(19). Spill buckets must be kept clean of water and debris such that the buckets' full capacity is maintained and available to catch overfills. Spill buckets must be inspected and, if necessary, cleaned before and after each product delivery.

Loading rack catchment and containment systems at new and replacement bulk plants or other distribution facilities shall be maintained by the owner or operator in accordance with API Standard 2610 and to capture an overfill or spill incident of at least 100 gallons.

(c) <u>All tanks may only be filled by way of a liquid tight connection from the delivery vehicle in accordance with NFPA 30-A (9.2).</u>

(d) <u>The use of fuel delivery equipment or methods that bypass or prevent overfill equipment from functioning properly is prohibited.</u>

(8) General operation, maintenance and testing of leak detection equipment requirements

(a) All leak detection equipment must be maintained to operate at all times while the facility contains oil, and in accordance with the performance standards of this rule and the manufacturer's instructions.

(b) Continuous automated or electronic leak detection equipment must be tested at least annually and recalibrated if needed. Testing and recalibration must be conducted in accordance with the manufacturer's instructions by either a Maine certified underground oil storage tank installer, or inspector who is also certified by the manufacturer of the equipment, if such manufacturer certification is available.

(c) Repairs of continuous, automated or electronic leak detection equipment must be conducted within 30 days by a Maine certified underground oil storage tank installer. If the leak detection system is not properly operating within 30 days of discovery of a problem, the commissioner must be notified in writing by the owner or operator.

(d) A log of all tests, maintenance and repairs must be maintained by the owner in accordance with section 5(D)(19).

(e) Test records must include at a minimum the following information: facility name, address and registration number, tank(s) and piping tested (tank number), test method used; test date(s); test's leak detection threshold; date and time of last product delivery; length of any applicable waiting period; product level during test, and the length of time of the test.

(9) Automatic Tank Gauging (ATG) Systems

(a) ATG systems used to meet the leak detection retrofitting requirements of section 5(C)(1) for existing facilities must be installed as a permanent component of the facility.

(b) Testing must be conducted at ~~60 percent or more of~~ a tank capacity or a range of tank capacities as specified in the equipment manufacturer's instructions.

(c) ATG systems must monitor at the tank bottom for water level gains of more than 1/2 inch.

(d) ATG systems must be operated with a back-up system to preserve test data in the event of a power outage.

(e) ATG systems must print or record test results at least once every 30 days. Test records must be maintained in accordance with section 5(D)(19) and must include the test dates; the tests' leak detection threshold; water levels; the date and time of the last prior product delivery; the length of any applicable waiting period; product level; and test length.

(10) Precision testing

(a) Results of all annual precision tests conducted to meet the annual leak detection requirements of section 5(C)(2)(a) for an existing facility, must be submitted to the commissioner or his representative by the facility owner. The test results must be submitted by July 1. The test results must also be maintained and be available for inspection in accordance with section 5 (D)(19) of this rule. Each test record must contain the following information: facility name, address, and registration number; tank(s) and piping tested (tank number); tank volume and product stored; test method used; test date; test's threshold; length of waiting period; product level during test; ~~and~~ the actual length of time to conduct test; and the name and cerification number of the supervising certified installer, if required to be present by Appendix B,

(b) The commissioner may require precision testing as defined in this rule of all tanks and piping at a facility showing evidence of a possible leak, as defined in section 5(D)(11) below.

(c) Results of precision tests conducted in follow-up to evidence of a possible leak and in accordance with section 12(B) of this rule, must also be submitted to the commissioner by the person conducting the test.

(11) Evidence of a possible leak or discharge

(a) Evidence of a possible leak or discharge includes, but is not limited to, any one of the following:

(i) A positive analysis for oil or evidence of oil in a ground water monitoring well or monitoring results from any leak detection equipment or method indicating a possible leak, release or discharge.

(ii) Any sheen or other visual or olfactory evidence of oil found in a monitoring well, or in water or soil in a tank or piping excavation or a test pit.

(iii) Any unexplained loss or gain of 1.0 percent of the throughput of each storage system over a 30-day period, as indicated by the recording and reconciliation of daily inventory records.

(iv) Failure of a piping line tightness test, as defined in section 3(JJ) or a tank tightness test as defined in section 3(UU), which indicate a leak of 0.1 gallons per hour or greater.

(v) Failure of a precision test as defined in section 3 (LL), other than a piping or tank tightness test which indicates a loss or gain of 0.1 gallons per hour or greater.

(vi) Unexplained losses detected through a statistical analysis of inventory records or an indication in the statistical inventory analysis that the inventory data provided were insufficient to perform an accurate analysis.

(vii) The excessive accumulation of water in a tank, evidenced by a rise in water level of greater than one-half inch (1/2") for an 8 to 12 hour period, except where the cause of the water accumulation is storm water runoff intrusion and is promptly corrected.

(viii) Reduced flow in a remote pumping system equipped with an in-line leak detector, unless the system returns to normal operating flows within one hour of the first discovery that day.

(ix) Pump hesitation, vibration, meter stripping or air elimination, attributable to a loss of prime for product lines, which operate under a suction system.

(x) Discovery of oil on or under abutting properties, including nearby utility conduits, sewer lines, buildings, drinking water supplies, groundwater or soil.

(xi) Evidence of the presence of oil or water entering into the interstitial space of a secondary containment facility, or a significant drop in the liquid level of a hydrostatically monitored interstitial space as specified by the tank or leak detection equipment manufacturer's instructions.

(xii) Any actual leaks or discharges of oil found on the premises, including, but not limited to, spills, overfills and leaks, whether or not cleaned up.

(12) Product compatibility. Only oil and petroleum products chemically and physically compatible with the materials, from which the tank, piping and other components of the facility routinely containing product are constructed, may be stored. Prior to storing alcohol blended fuel exceeding 10 percent alcohol in fiberglass tanks or piping, the owner must contact the tank and piping manufacturers to determine its long-term compatibility with

the composition of the fiberglass resins. Written documentation of product compatibility for alcohol blended fuel and a fiberglass facility must be maintained at the owner's place of business or the facility.

(13) Leak or discharge reporting requirements

(a) A tank owner or operator shall report to the commissioner as soon as possible, but no later than within 24 hours any evidence of a possible leak or discharge of oil, including but not limited to those listed in section 5(D)(11).

(b) A certified underground tank installer, remover or inspector finding evidence of a possible leak or discharge of oil must report it to the facility owner or operator, and the commissioner, as soon as possible, but no later than within 24 hours of discovery.

NOTE: TO REPORT A LEAK, SPILL OR OTHER DISCHARGE OF OIL, CALL TOLL FREE 1-800-482-0777.

(c) Notwithstanding the above, discharges of 10 or less gallons of oil that occur on the facility's premises and above the surface of the ground onto a concrete or asphalt paved surface, and not reaching ground water or surface waters of the State need not be reported to the commissioner if the owner or operator complies with all of the following requirements:

(i) The discharge is fully cleaned up within 24 hours of discovery.

(ii) A written log is maintained at the facility or the owner's place of business in accordance with section 5(D)(19), recording for each discharge the date of discovery, its source, the general location of the discharge on the facility, the date and method of cleanup, and the signature of the facility owner or operator certifying the accuracy of the log.

(iii) The spill log must be made available upon request within 24 hours for inspection by personnel and authorized agents of the commissioner and the municipality.

(d) Under 38 M.R.S.A., section 568(4), any person who causes or is responsible for a discharge to ground water is not subject to any fines or civil penalties for the discharge if the person promptly reports and removes that discharge in accordance with the rules and orders of the commissioner, and the board.

(14) Manual sampling of ground water-monitoring wells

(a) Where monitoring wells have been installed at an underground oil storage facility and are intended to meet the leak detection requirements of section 5(C), the owner or operator must sample those wells weekly by withdrawing a sample from each monitoring well on site and examining the sample visually for a sheen or other evidence of oil, and by smelling the sample for the odor of "oil." Weekly sampling shall be performed in accordance with the procedures required in Appendix H.

(b) Records of each sampling must be maintained in a logbook in accordance with section 5(D)(19). The logbook must include the date and time of sampling, the initials of the person performing the sampling, and a record of the inspection of all monitoring well samples. The logbook must be available upon request to any department employee, agent or authorized representative and to any municipal official.

NOTE: A sample log sheet is provided in Figure 3 of Appendix H.

(c) Upon discovery of any evidence of a possible leak as defined in section 5(D)(11) of this rule, the owner of the tank shall cause notice to be given to the commissioner as soon as possible but not later than 24 hours from the time of discovery. The tank owner shall then obtain samples from all ground water monitoring wells for laboratory analysis in accordance with the procedures required in Appendix H. Investigation and corrective action requirements of section 12 of this rule must be followed.

(d) Where laboratory analysis is required, all monitoring wells must be sampled and the samples analyzed for the presence of methyl tertiary butyl ether (MTBE), benzene and gasoline or fuel oil in accordance with the requirements of Appendix S of this rule. The monitoring wells must be sampled and all samples must be handled in conformance with the requirements of Appendix H. The results of all hydrocarbon analysis must be maintained in accordance with section 5(D)(19).The detection of hydrocarbons in concentrations exceeding the reporting limits must be reported to the commissioner by the facility owner or operator as soon as possible, but not later than 24 hours from the time of discovery.

(15) Manual interstitial space monitoring

(a) Where secondary containment is provided for leak detection without continuous monitoring, the owner or operator shall sample the interstitial space once per week for evidence of a leak or discharge of oil, and the inflow of ground water.

(b) The interstitial space of double walled tanks must be monitored in accordance with the instructions of the tank or leak detection equipment manufacturer.

(c) When piping with secondary containment sloped to a monitoring sump or man-way has been installed, and continuous electronic monitoring has not been installed, the owner or operator shall physically check the man-way or sump weekly for visual evidence of oil.

(d) For facilities where secondary containment is provided by an excavation liner, the monitoring wells must be sampled weekly for evidence of a leak or discharge in accordance with the procedures for monitoring well sampling outlined in section 5(D)(14).

(e) A record of each inspection or sampling event must be maintained in a logbook in accordance with section 5(D)(19). The log must include the date and time of each monitoring event, what was found, and the initials of the person doing the monitoring.

(16) Interior relining of new and existing facilities

(a) Tanks may be relined provided that, prior to lining, the tank has passed a precision test and is free of perforations, except fiberglass tanks that have failed may be relined or repaired if the cause of failure will be completely repaired to the satisfaction of the commissioner and a warranty is provided by the person performing the repairs. The warranty must be for a minimum of 10 years and must warranty the tanks against internal and external corrosion and structural failure. A fiberglass tank that once failed a precision test, and was subsequently lined, must be precision tested prior to be placed back in operation. Where a fiberglass tank with a leak is lined, the tank must be properly abandoned pursuant to the section 11 of this rule upon expiration of the warranty.

(b) The following requirements also apply to relining activities:

(i) After relining, fiberglass tanks must pass a precision test.

(ii) The material used as a liner must be compatible with the product to be stored in the tank.

(iii)The lining procedure must be performed in accordance with the procedures outlined in American Petroleum Institute Recommended Practice No. 1631.

(iv) Piping may not be relined.

(v) The owner of the facility shall amend the facility's registration in accordance with section 4(M) of this rule and maintain records of

relining for the remaining operating life of the lined tank that demonstrate compliance with this paragraph.

NOTE: Interior lining of a nonconforming unprotected steel tank does not extend the deadline for abandonment of the tank under 38 M.R.S.A., section 563-A.

(17) Repairs other than relining

(a) Repairs are allowed in accordance with this paragraph to tanks and piping constructed of fiberglass, cathodically protected steel and other noncorrosive materials approved by the commissioner.

(b) Repairs allowed of tank and piping not constructed of fiberglass, cathodically protected steel or other noncorrosive materials approved by the commissioner are limited to correcting loose fittings and joints.

(c) Repairs of corrosion induced or product incompatibility caused leaks are prohibited. ~~Steel t~~Tanks and piping with corrosion or chemical reaction induced leaks must be closed in accordance with section 11 of this rule.

(de)Repairs, other than those prohibited in paragraph c above, to fiberglass, cathodically protected steel and other approved noncorrosive material tanks and piping must be properly conducted by a Maine Board of Underground Oil Storage Tank Installers (BUSTI) certified underground tank installer who is also certified by the manufacturer, or by the manufacturer's authorized representative under the supervision of a Maine certified underground tank installer.

NOTE: A Maine certified installer must also be certified by the tank or piping manaufacturer to conduct a repair on a tank or piping without a representative of the manufacturer, so not to void the manufacturer warrantee.

(e) Repairs of a facility's leak detection system, overfill prevention equipment, or other ancillary equipment must also be conducted by an underground tank installer certified by the BUSTI and by the manufacturer of the equipment being repaired, when such manufacturer certification is available, except as noted below.

The following minor repairs of existing equipment or components, when not requiring excavation, may be conducted by an underground oil storage tank inspector certified by the BUSTI and by the manufacturer of the equipment being repaired, when such certification by the equipment manufacturer is available:

(i) Replacement of a defective mechanical or electronic line leak detector with one of the same design;

(ii) Replacement of a drop tube;

(iii)Replacement of a drop tube overfill prevention device with one of the same design; and

(iv)Replacement of a leak detection system sensor or control panel with one of the same make and model.

(fd)Tank and piping repairs are to be conducted in accordance with manufacturer specifications or in accordance with the National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code".

(ge)Repairs jeopardizing the manufacturer's original warrantee are prohibited.

(hf)Repaired tanks and piping must be precision tested before going back into operation, except where the repair only included tightening of a loose union, coupling or flexible connector.

(ig)Repairs to a cathodic protection system must be conducted in accordance with the NACE International. Recommended Practices 0285-2002 and 0169-2002. Repairs to a galvanic cathodic protection systems must be conducted by a certified installer. Repairs to an impressed current, cathodic protection system must be supervised by a corrosion expert and a Maine certified tank installer.

(jh)Within 6 to 12 weeks of a repair to a cathodic protection system, the owner or operator shall have the system tested by a certified installer, or certified inspector also certified as a cathodic protection tester in accordance with Appendix A.

(ki)Owners must maintain records of each repair of the type listed in this paragraph for the remaining life of the facility.

(18) Financial responsibility requirements

(a) The owner or operator of a new, replacement or existing tank or facility shall demonstrate to the commissioner that the owner or operator has the ability to assure the costs of corrective action and for compensating third parties for bodily injury, property damage and loss of income caused by sudden and non-sudden releases, leaks or discharges from an underground oil storage facility.

(b) Owners or operators shall maintain an ability to assume financial responsibility in accordance with this rule in at least the following per-occurrence amounts.

(i) Owners or operators of all marketing or distribution facilities and motor fuel facilities that handle an average of more than 10,000 gallons of oil per month based on the previous year's throughput shall maintain $1 million.

(ii) All other owners or operators of marketing, distribution and motor fuel underground oil storage facilities shall maintain $500,000.

(c) Owners or operators shall maintain an ability to assume financial responsibility in accordance with this rule in at least the following annual aggregate amounts.

(i) For owners or operators of one (1) to 100 tanks, $1 million; and

(ii) For owners or operators of 101 or more tanks, $2 million.

(d) The amounts of assurance required under this section exclude legal costs.

(e) A facility owner or operator may use any one or combination of the financial responsibility mechanisms listed below in meeting the requirements of subparagraphs a through d above and of the U.S. Environmental Protection Agency's financial responsibility requirements for underground storage tanks containing petroleum:

(i) Self insurance meeting the financial test of self insurance under 40 CFR, Part 280.95;

(ii) Guarantee meeting the requirements of 40 CFR, Part 280.96;

(iii) Liability insurance or risk retention group coverage meeting the requirements of 40 CFR, Part 280.97;

(iv) Surety bond meeting the requirements of 40 CFR, Part 280.98;

(v) Letters of credit meeting the requirements of 40 CFR, Part 280.99;

(vi) Trust fund meeting the requirements of 40 CFR, Part 280.102; or

(vii) The Maine Ground Water Oil Cleanup Fund in accordance with the eligibility requirements and financial assurance limits of 38 MRSA, sections 568-A and 569-A, in combination with one or more of the other above mechanisms to assure full coverage of third party

damage liability in accordance with the minimum financial assurance requirements of sections 5(D)(18)(a) and 5(D)(18)(b) above.

(f) Municipalities, counties, school administrative districts and Indian tribes may use, in addition to the mechanisms listed in paragraph (e) above, any one or combination of the following financial assurance mechanisms:

(i) Local government bond rating test in accordance with 40 CFR Part 280.104;

(ii) Self insurance when meeting the local government financial test and the provisions of 40 CFR Part 280.105;

(iii) Local government guarantee meeting the requirements of 40 CFR Part 280.106; and

(iv) A local government dedicated trust fund meeting the requirements of 40 CFR Part 280.107.

(g) An owner or operator may replace one financial assurance mechanism for another, provided that at all times the owner or operator maintains an effective financial assurance mechanism or combination of mechanisms that satisfy the requirements of this paragraph.

(h) Financial assurance mechanisms may be canceled or not renewed in accordance with 40 CFR, Part 280.109.

(i) The facility owner or operator shall maintain financial responsibility records at the facility or at the owner's place of business in accordance with 40 CFR Part 280.17.

(j) In the event of bankruptcy or other financial responsibility incapacity of the facility owner or operator, or a provider of financial assurance; the notification and financial responsibility replacement requirements of 40 CFR, Part 280.114 must be met.

(k) An owner or operator is no longer required to maintain financial responsibility under this rule after a tank or facility has been properly closed in accordance with section 11 of this rule, and if corrective action is required by the commissioner, after the corrective action has been completed to the commissioner's satisfaction and in accordance with section 12 and other rules or orders of the commissioner and board.

(19) Maintenance of records. All logs, monitoring results and other records required by this section must be maintained for a minimum of three (3)

years. Except where specifically stated otherwise, facility records must be kept at the facility or the owner's primary place of business, and made readily available to the commissioner, the commissioner's representatives and agents, and municipal officials within 36 hours.

(20) Annual compliance inspection requirements. The owner of a facility is responsible for ensuring that the entire facility is inspected annually for compliance with the applicable requirements of this rule, 38 M.R.S.A., subchapter II-B, and department rules regarding stage I gasoline balance systems contained in chapter 118, where applicable. The owner shall have any deficiencies detected during an inspection corrected as necessary to bring the facility into compliance with the requirement cited above.

The facility owner shall submit annual inspection results to the commissioner on or before July 1, 2003, and each July 1st thereafter. The inspection results must be recorded on a form provided by the commissioner and must include a certification statement, signed by an underground oil storage tank installer or inspector certified by the Maine Board of Underground Oil Storage Tank Installers. Such a certification must certify that the entire facility was inspected and any deficiencies discovered have been corrected. Inspection and correction records must also be maintained in accordance with section 5(D)(19). All corrections must be completed prior to the annual July 1st reporting deadline.

NOTE: Under Maine statue, 38 M.R.S.A., section 563(9)(B), the commissioner may issue an administrative order to enforce the annual inspection requirements above. Such orders may include ceasing receipt of product deliveries to, and the overall operation of, the portion of the facility in violation of this requirement.

---

(21) Safe excavation requirements

(a) This paragraph applies to excavation activities on the facility's premises and associated with its operation and maintenance.

(b) To ensure adequate protection of public safety and the maintenance of the structural integrity of the facility in accordance with the requirements of this rule, the owner of a facility shall have a certified underground oil storage tank installer present to supervise the excavation and replacement of a concrete pad, back fill, or soil within 10 feet of an underground oil storage tank or facility product piping. The certified underground oil storage tank installer shall be present at all times when such work is being performed. No person other than a certified underground oil storage tank

installer may supervise the above activities.

(c) The installer shall have the appropriate class of certification in accordance with 32 M.R.S.A., section 10001 et seq.

(d) In accordance with NFPA 30 and 30-A, no excavation, or other activities that may act as a source of ignition of flammable vapors at a Class 1 liquid dispensing facility shall occur within 20 feet of a fueling dispenser, unless the electrical power supply to the dispenser has first been turned off and all fueling operations from that dispenser have ceased.

(e) A written record must be maintained by the facility owner of the excavation date(s) and location, and the name and certification number of the supervising installer.

NOTE: Any discharge caused by or discovered in the course of an excavation must be reported in accordance with section 5(D)(13).

---

(22) Proper oversight of Stage II vapor testing. To avoid damage to the facility and its components, Stage II vapor testing as required by Chapter 118 of the department's rules must be conducted by, or in the presence of an installer or inspector certified by the Maine Board of Underground Oil Storage Tank Installers.

E. Facility closure and abandonment

(1) The closure, abandonment or temporary discontinuance of service of a facility or any part thereof must be conducted in accordance with section 11 of this rule.

(2) Mandatory facility closure. In accordance with section 564(5) of 38 M.R.S.A., a tank and its associated piping must be taken out of operation and properly abandoned upon the expiration date of the manufacturer's tank warranty. This requirement does not apply until January 1, 2008 to a tank installed before December 31, 1985 that has been retrofitted to meet the requirements of this section of the rule.